

2SD1819A

Silicon NPN epitaxial planar type

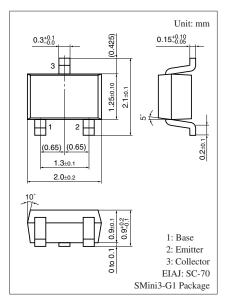
For general amplification Complementary to 2SB1218A

■ Features

- \bullet High forward current transfer ratio h_{FE}
- ullet Low collector-emitter saturation voltage $V_{\text{CE(sat)}}$
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape pacing and the magazine pacing.

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V _{CBO}	60	V
Collector-emitter voltage (Base open)	V _{CEO}	50	V
Emitter-base voltage (Collector open)	V_{EBO}	7	V
Collector current	I_C	100	mA
Peak collector current	I_{CP}	200	mA
Collector power dissipation	P_{C}	150	mW
Junction temperature	T_{j}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C



Marking Symbol: Z

■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	60			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 2 \text{ mA}, I_B = 0$	50			V
Emitter-base voltage (Collector open)	V _{EBO}	$I_E = 10 \ \mu A, I_C = 0$	7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 20 \text{ V}, I_{E} = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = 10 \text{ V}, I_{B} = 0$			100	μΑ
Forward current transfer ratio	h _{FE1} *	$V_{CE} = 10 \text{ V}, I_{C} = 2 \text{ mA}$	160		460	_
	h _{FE2}	$V_{CE} = 2 \text{ V}, I_{C} = 100 \text{ mA}$	90			
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$		0.1	0.3	V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -2 \text{ mA}, f = 200 \text{ MHz}$		150		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3.5		pF
(Common base, input open circuited)						

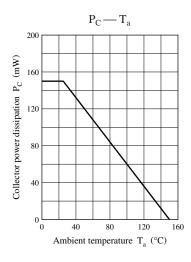
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

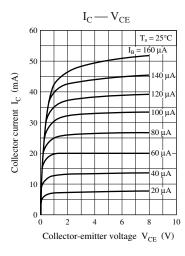
2. *: Rank classification

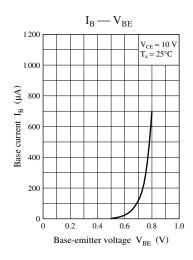
Rank	Q	R	S	No rank
h_{FE1}	160 to 260	210 to 340	290 to 460	160 to 460
Marking symbol	ZQ	ZR	ZS	Z

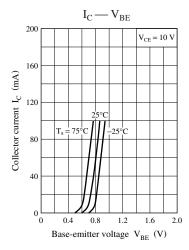
Product of no-rank is not classified and have no marking symbol for rank.

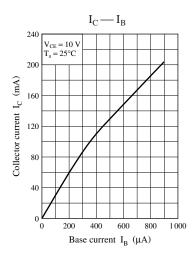
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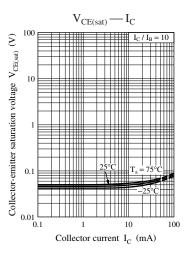


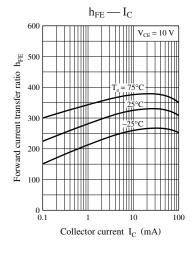


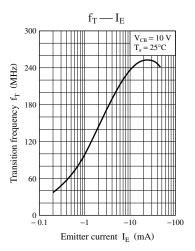












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